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Edwin Riley Cooper

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EXAMINER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/820,341	Applicant(s) COOPER ET AL.	
	Examiner OLUJIMI A. ADESANYA	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 1-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Request for Continued Examination

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/23/2009 has been entered.

Response to Arguments

3. Applicant's arguments with respect to **claims 23-54** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

Claims 33-43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory "process" under 35 U.S.C. 101 must (1) be

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. In particular, **claim 33** do not positively recite a statutory process to which they are tied. For example the method steps of claim 33 appear to recite mental steps and do not identify the apparatus that accomplishes the method steps. The claims must be tied to another statutory category by identifying the apparatus performing the steps of the method, where "identifying the apparatus" requires that the process claim explicitly recite the particular machine or apparatus, or recite a step that inherently involves the use of a particular machine or apparatus. The claimed methods of 33 could be performed by a human, and thus are not tied to another statutory class.

Claim Rejections - 35 USC § 102

1. **Claims 23, 25, 32-34, 39, 42 and 43** are rejected under 35 U.S.C. 102(b) as being anticipated by Mekikian et al WO 2001/0188662 A2 ("Mekikian")

As to **claim 23**, Mekikian discloses a system comprising:

a language analysis module configured to parse a query into elements (receiving segments....e.g. sentences, each segment having elements.., pg 5, ln 20-25; matching elements in a question with elements in an index file..., pg 6, ln 18-20, fig 1-3 elements as portions of parsed query) and

to associate one or more annotations with respective ones of at least some of the elements, a type of each of the annotations being either canonical or conceptual ("what are the ski conditions like in Aspen?"...generate TAGS...for Aspen, such as "ski rental"...Flying to Aspen", pg 28, ln 20-27, Aspen as element associated with the TAGS/annotations);

a rules engine coupled to the language analysis module to receive the elements and the annotations, the rules engine configured to perform a comparison of a condition of a rule against the elements and the annotations (After all elements in the question have been matched, the sentences are sorted... sorted sentence list, a decision is made..., if the answer quality...is high..., if several of the top...have close scores..., pg 25, ln 10-29; fig 3, if..., as rules, score of answers as conditions), and

to selectively enable an action of the rule based upon a result of the comparison (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions);

a response generator coupled to the rules engine and configured to display information in response to the action (display, pg 25, ln 10-29; fig 11-14 as a way of producing information); and

wherein the action when enabled selects one of one or more information retrieval technologies to produce the information, and wherein the selected information retrieval technology is configured to search content storage via a semantic index to produce at least a portion of the information matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24; if the answer quality...is high....displayed alone, if

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several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions).

As to **claim 25**, Mekikian discloses the system of claim 23, wherein the action specifies one or more of the elements and the annotations as keys used to access the semantic index (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24).

As to **claim 32**, Mekikian discloses the system of claim 23, wherein the language analysis module is further configured to process the content storage to form the semantic index (fig 2).

As to **claim 33**, Mekikian discloses a method comprising:

parsing a query into elements (receiving segments....e.g. sentences, each segment having elements..., pg 5, ln 20-25; matching elements in a question with elements in an index file..., pg 6, ln 18-20, elements as portions of parsed query)

associating one or more annotations with respective ones of at least some of the elements ("what are the ski conditions like in Aspen?"...generate TAGS...for Aspen, such as "ski rental"...Flying to Aspen", pg 28, ln 20-27, Aspen as element associated with the TAGS/annotations);

comparing respective conditions of each of a plurality of rules against the elements and the annotations (After all elements in the question have been matched, the sentences are sorted... sorted sentence list, a decision is made..., if the answer quality...is high..., if several of the top...have close scores..., pg 25, ln 10-29, if..., as rules, score of answers as conditions);

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selectively firing a respective action of each of the plurality of rules based on respective results of the comparing (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions);

in response to at least one of the firing actions, operating one or more information retrieval technologies to produce respective information (display, pg 25, ln 10-29, as a way of producing information);

matching, by at least one of the rules, a plurality of the elements and the annotations to a concept representing an intent of the query, wherein each of the plurality of the elements and the annotations corresponds to one or more words of the query (generate ad TAGS, "what are the ski conditions like in Aspen?"...generate TAGS...for Aspen...the ads are presented...along with the answer to the question, pg 28, ln 20 – pg 29, ln 2; by "element"... , we mean a concept...in the sentence, pg 15, ln 6-8);

searching content storage using the concept as a key to a semantic index as a part of one of the information retrieval technologies and displaying the information (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24).

As to **claim 34**, Mekikian discloses the method of claim 33, wherein the matching is via a regular expression language (language, pg 31, ln 28 – pg 32, ln 6).

As to **claim 39**, Mekikian discloses the method of claim 33, wherein the comparing is via a regular expression language (language, pg 31, ln 28 – pg 32, ln 6).

As to **claim 42**, Mekikian discloses the method of claim 33, further comprising:

determining a respective relevancy of each of at least some of the firing actions and selectively performing each of the at least some of the firing actions based upon the respective relevancy (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, score as relevancy).

As to **claim 43**, Mekikian discloses the method of claim 42, wherein the respective relevancy of a particular one of the firing actions is based on the ones of the elements and the annotations that contributed to the respective results of the comparing that selectively fired the particular firing action (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, score as relevancy).

Claim Rejections - 35 USC § 103

2. **Claims 31, 44-45, 50, 53 and 54** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mekikian

As to **claim 31**, Mekikian discloses the system of claim 23,

Mekikian does not explicitly disclose but suggests selectively enabling an action based on comparing peripheral information distinct from a query against a business condition of a rule (business, log includes...identification of the user...questions asked...log is analyzed to generate pre-defined reports..., pg 30, ln 26 - pg 31, ln 15; fig 10, log as peripheral information)

At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize a method/system wherein the rules engine is further configured to

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selectively enable an action based on comparing peripheral information distinct from a query against a business condition of a rule, so as to generate reports specific to a corporation or an individual.

As to **claim 44**, Mekikian discloses buffers and databases (fig 2 - 3) but does not explicitly disclose a computer readable medium or instructions to perform the limitations of claims 33 and 44.

However, at the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize a computer readable medium comprising instructions, so as to store information and provide a way of updating original information.

computer readable medium claim 44 and method claim 33 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 44 is similarly rejected under the same rationale as applied above with respect to method claim 33.

As to **claim 45**, Mekikian discloses the computer readable medium of claim 44,

Computer readable medium claim 45 and method claim 34 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 45 is similarly rejected under the same rationale as applied above with respect to method claim 34.

As to **claim 50**, Mekikian discloses the computer readable medium of claim 44, Computer readable medium claim 50 and method claim 39 are related as computer readable medium and the method of using same, with each claimed element's function

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corresponding to the claimed method step. Accordingly claim 50 is similarly rejected under the same rationale as applied above with respect to method claim 3.

As to **claim 53**, Mekikian discloses the computer readable medium of claim 44, Computer readable medium claim 53 and method claim 42 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 53 is similarly rejected under the same rationale as applied above with respect to method claim 42.

As to **claim 54**, Mekikian discloses the computer readable medium of claim 53, Computer readable medium claim 54 and method claim 43 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 54 is similarly rejected under the same rationale as applied above with respect to method claim 43.

3. **Claims 24, 26-30, 35-38, 40-41, 46-49 and 51-52** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mekikian et al WO 2001/0188662 A2 ("Mekikian") in view of Lin et al US 6,675,159 B1 ("Lin")

As to **claim 24**, Mekikian discloses the system of claim 23,

Mekikian does not explicitly disclose matching ones of the elements against concepts stored in a multi-layered concept repository to produce the conceptual annotations (col. 9, ln 55-65; col. 27, ln 1-22).

However, this feature is well known as is evidenced by **Lin** (transforms input

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sentences into...tagged instances of concepts..., col. 9, ln 55-65; ontology, col. 8, ln 51-55; parent concept, col. 27, ln 1-22; col. 26, ln 42-62)

At the time of the invention it would have been obvious to one of ordinary skill in the art to implement matching ones of the elements against concepts stored in a multi-layered concept repository to produce the conceptual annotations, so as to show the relation of the element to other concepts (Lin, col. 27, ln 1-14).

As to **claim 26**, Mekikian discloses the system of claim 23, and wherein the action specifies the concept as a key used to access the semantic index (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24).

Mekikian does not explicitly disclose associating via a regular expression language specifying the condition of the rule, a plurality of the elements and the annotations with a concept in a multi-layered concept repository

However, this feature is well known as is evidenced by **Lin** (transforms input sentences into...tagged instances of concepts..., col. 9, ln 55-65; ontology, col. 8, ln 51-55; parent concept, col. 27, ln 1-22; col. 26, ln 42-62)

At the time of the invention it would have been obvious to one of ordinary skill in the art to implement associating via a regular expression language specifying the condition of the rule, a plurality of the elements and the annotations with a concept in a multi-layered concept repository, so as to show the relation of the element to other concepts (Lin, col. 27, ln 1-14).

As to **claim 27**, Mekikian in view of Lin disclose the system of claim 26,

Mekikian discloses wherein the rule is one of a plurality of rules, each of the rules having a respective condition and a respective action (After all elements in the question have been matched, the sentences are sorted... sorted sentence list, a decision is made..., if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, if..., as rules, score of answers as conditions, display as action);

wherein the selected information retrieval technology is a first selected information retrieval technology, and the at least a portion of the information is a first portion of the information ("what are the ski conditions like in Aspen?"...generate TAGS...for Aspen, such as "ski rental"...Flying to Aspen", pg 28, ln 20-27; if the answer quality...is high....displayed alone, pg 25, ln 14-29);

wherein a second one of the actions when enabled selects a second distinct one of the information retrieval technologies, and the second selected information retrieval technology is configured to supply a managed answer as a second portion of the information (if several of the top...have close scores...they can all be displayed, pg 25, ln 14-29; generate pre-defined reports..., pg 30, ln 26-pg 31).

As to **claim 28**, Mekikian in view of Lin disclose the system of claim 27,

Mekikian discloses wherein a third one of the actions when enabled provides a bias requirement, and wherein the response generator is configured to selectively display the information based on the bias requirement (bias can be applied to cause the display...., pg 25, ln 14-29)

As to **claim 29**, Mekikian in view of Lin disclose the system of claim 28 and the response generator,

Mekikian does not explicitly disclose but suggests wherein the response generator is configured to display the first portion of the information in a first portion of a screen, and to display a second portion of the information in a second separate portion of the screen (that sentence could be displayed alone...they can all be displayed...bias can be applied to cause the display of high-scoring sentences...., pg 25, ln 14-29)

At the time of the invention, it would have been obvious to one of ordinary skill in the art to display a first portion of the information in a first portion of a screen, and to display a second portion of the information in a second separate portion of the screen, so as to differentiate between the documents/sentences returned by the response generator.

As to **claim 30**, Mekikian in view of Lin disclose the system of claim 27,

Mekikian discloses wherein the managed answer is specified via the one of the rules having the second action (pg 25, ln 14-29; generate pre-defined reports...., pg 30, ln 26-pg 31)

As to **claim 35**, Mekikian discloses the method of claim 34, and the rule examples

Mekikian does not explicitly disclose wherein the matching determines if at least one of the plurality of the elements and the annotations shares a common ancestor in a multi-layered concept repository with a question example of the at least one of the rules.

However, this feature is well known as is evidenced by **Lin** (transforms input sentences into...tagged instances of concepts..., col. 9, ln 55-65; ontology, col. 8, ln 51-55; parent concept, col. 27, ln 1-22; col. 26, ln 42-62)

At the time of the invention it would have been obvious to one of ordinary skill in the art to implement matching which determines if at least one of the plurality of the elements and the annotations shares a common ancestor in a multi-layered concept repository with a question example of the at least one of the rules, so as to show the relation of the element to other concepts (Lin, col. 27, ln 1-14).

As to **claim 36**, Mekikian in view of Lin disclose the method of claim 35,

Mekikian discloses wherein the one of the information retrieval technologies is a first one of the information retrieval technologies, and further comprising:

in response to a first one of the firing actions, operating the first information retrieval technology (if the answer quality...is high....displayed alone, pg 25, ln 14-29);

in response to a second one of the firing actions, operating a second distinct one of the information retrieval technologies (if several of the top...have close scores...they can all be displayed, pg 25, ln 14-29); and

providing, via the second one of the information retrieval technologies, a managed answer (pg 25, ln 14-29; generate pre-defined reports..., pg 30, ln 26-pg 31).

As to **claim 37**, Mekikian in view of Lin disclose the method of claim 36,

Mekikian discloses wherein the displaying of the information is selectively based on at least some of the firing actions (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24).

As to **claim 38**, Mekikian in view of Lin disclose the method of claim 37,

Mekikian discloses providing by the at least some of the firing actions a bias requirement and wherein the displaying of the information is selectively based on the

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bias requirement (bias can be applied to cause the display...., pg 25, ln 14-29).

As to **claim 40**, Mekikian discloses the method of claim 39,

Mekikian does not explicitly disclose wherein the associating is, at least in part, via a multi-layered concept repository producing conceptual ones of the annotations

However, this feature is well known as is evidenced by **Lin** (transforms input sentences into...tagged instances of concepts..., col. 9, ln 55-65; ontology, col. 8, ln 51-55; parent concept, col. 27, ln 1-22; col. 26, ln 42-62)

At the time of the invention it would have been obvious to one of ordinary skill in the art to perform the associating at least in part, via a multi-layered concept repository producing conceptual ones of the annotations, so as to show the relation of the element to other concepts

As to **claim 41**, Mekikian in view of Lin disclose the method of claim 40,

Mekikian discloses wherein at least one of the firing actions specifies one or more of the elements and the annotations as additional keys used for the searching of the content storage (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24).

As to **claim 46**, Mekikian discloses the computer readable medium of claim 45,

Computer readable medium claim 46 and method claim 35 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 46 is similarly rejected under the same rationale as applied above with respect to method claim 35.

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As to **claim 47**, Mekikian in view of Lin discloses the computer readable medium of claim 46,

Computer readable medium claim 47 and method claim 36 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 47 is similarly rejected under the same rationale as applied above with respect to method claim 36.

As to **claim 48**, Mekikian in view of Lin discloses the computer readable medium of claim 47,

Computer readable medium claim 48 and method claim 37 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 48 is similarly rejected under the same rationale as applied above with respect to method claim 37.

As to **claim 49**, Mekikian in view of Lin discloses the computer readable medium of claim 48,

Computer readable medium claim 49 and method claim 38 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 49 is similarly rejected under the same rationale as applied above with respect to method claim 38.

As to **claim 51**, Mekikian in view of Lin discloses the computer readable medium of claim 50, Computer readable medium claim 51 and method claim 40 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 51 is similarly

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rejected under the same rationale as applied above with respect to method claim 40.

As to **claim 52**, Mekikian in view of Lin discloses the computer readable medium of claim 51, Computer readable medium claim 52 and method claim 41 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 52 is similarly rejected under the same rationale as applied above with respect to method claim 41.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. US 20030217052

6. US 5794050

7. US 5873056

8. US 5933822

9. US 6038560

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUJIMI A. ADESANYA whose telephone number is 571-270-3307. The examiner can normally be reached on Monday-Friday 7.30a.m - 5.00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHEMOND DORVIL can be reached on 571-272-7602. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/OLUJIMI A ADESANYA/

Examiner, Art Unit 2626

/Richmond Dorvil/

Supervisory Patent Examiner, Art Unit 2626